

TWELVE-CYLINDER MOTORS POPULAR

New Liberty Motor Said to Be of Multiple Cylinder Design that Has Given Satisfaction in Autos.

While public interest in airplanes is for the present monopolized by the spectacularism of military plane accomplishments in Europe, it is the tremendous American building program backed by a \$1,000,000,000 appropriation of the United States government that will bring home to the American people the true scope of the airplane in utilitarian and sport fields. This, at least, is the view of the officials of the National Motor Car and Vehicle corporation. The twelve-cylinder type, because of various superiorities, was quickly adapted to airplanes. Curiously, the principle that did so much for the automobile attracted more attention from the general public in airplane performance than on road and speedway—probably for the simple reason that "air stunts" were more spectacular and newer.

Big Machine Built.
The sensational announcement of the Liberty motor—also said to be of the multiple-cylinder V-type—and the quick passage of a \$1,000,000,000 appropriation have naturally served to bring American interest nearer home and to the basis of airplane accomplishment, its motors. In turn, this attention is reverting to the work of the national engineers, whose achievements in developing the V-type, now commonly referred to as "airplane type," now receive more attention than ever.

The tremendous impulse to American airplane manufacture that must follow the government's action will

bring to Americans visual and impressive proof of the utilitarian capabilities of the heavier than air machine. Already a machine of the Caproni tri-plane type, with capacity of twenty-five passengers, has made successful flights near Norfolk, Va., carrying fifteen passengers despite a construction designed solely for military purposes. This machine can carry 4,000 pounds at eighty miles per hour for six hours. With such performances already history, there remains no doubt in the minds of engineers that airplane building in the United States faces a marvelous development that may in some degree equal the industrial records set by the automobile.

Original Contests Add Interest to Packard Sales

Through the mediums of synthetic foot ball games, cup races and various other devices every member of every Packard sales organization throughout the country is engaged these days in at least two sales contests with his fellow Packard salesmen. Two original contests contrived by the sales department at the factory created so much enthusiasm that they rapidly expanded into seven different forms of rivalry.

The salesmen of Packard trucks in the principal cities are lined up in two foot ball teams. Team progress is recorded on a gridiron and for touchdowns, goals from field and so on certain points are added to the team standing. The carriage salesmen are entered in a cup race. In an effort to determine the sales supremacy of the organization carriage and truck men are competing in an inter-departmental contest. Besides, there are rivalries on among the used car salesmen and the recent classes of graduates from the Packard carriage sales school.

To add to the interest the dealers in the two largest groups of Packard distributing points have formed competitions within their own organizations.

DANGEROUS TO ADD ACID TO BATTERIES

Elmer Rosengren Advises Motor Owners to Secure Services of Expert for Battery Troubles.

Among motor car owners, the idea that the storage battery can be brought back to a fully-charged condition by filling it with acid has made considerable headway, in spite of the emphatic statement of battery men that this is the worst possible thing that can be done for the battery.

"The only thing that the car owner should ever put into his battery," says Elmer Rosengren, the local Willard representative, "is pure water." The reason for this is easy to understand.

Pays to Secure Expert.
The electrolyte in the battery is an acid solution. As the battery discharges, the acid is absorbed by the plates. When the battery is completely discharged, the liquid inside is practically pure water. Charging the battery reverses this process, that is, it forces the acid out of the plates and into the liquid again, so that when the battery is fully charged the electrolyte is acid of normal strength.

If the car owner puts acid into the battery, he makes the solution altogether too strong, the chemical action between the electrolyte and the plates becomes too violent, and finally causes the oxide and even the framework of the plates themselves to corrode.

"Acid should never be put into the battery except by an expert."
Recent averages show that of the eight .300 hitters in the National league three are members of the Cardinals—Hornsby, Cruise and J. Smith.

Practical Paragraphs

By S. F. LaDue

Care of Differential.

Do not neglect the differential just because you filled it with grease once upon a time. Inspect it occasionally to make sure the grease or oil hasn't worked out. If the differential needs lubrication it absorbs an enormous proportion of the power of the motor and it will soon become noisy, a trouble for which there is no cure. If gears or differential become noisy a temporary relief may be obtained by using a heavier oil or grease, but this trouble comes back as the lubricant gets low. The noise is due to wear and the wear is usually due to neglect, so take proper care of your differential if you want to keep it quiet.

Danger of Loose Rims.

It is generally understood nowadays that wheels which are out of alignment cause undue tire wear. Few owners, however, realize that rims which are loose or otherwise improperly mounted will have the same effect of causing excessively rapid tread wear.

A loose rim generally makes its presence known by a clicking or squeaking sound. This is not always so, for occasionally a small stone or some sand may get in between the rim and felloe so as to prevent noise. The rim appears to be tight, but in reality is running out of alignment and wearing out the tire.

When Clutch is at Fault.

A great deal of clutch trouble for which the owner can find no obvious cause is due to the fact that the clutch shaft is out of true with the center of the flywheel. This causes one side of the cone clutch to bind, while the other side is free; in the case of the disc clutch the plates tend to hold only on one side. The result is that the clutch grabs when engaged.

ed. If persistent treatment and adjustment do not help a clutch it is safe to conclude that the condition mentioned is causing the trouble.

Drain the Crank Case.

All new cars and those which have

been run a few hundred miles should have the cylinder oil drained from the crank case. It is good economy to have this oil drained after the first 500 miles on account of the accumulation of grit, particles of carbon and dirt from bearings in the oil.

This grit is kept in circulation and acts in the same manner as emery, cutting the bearings.

Persistent Advertising Is the Road to Success.



New Cole Closed Cars



THE climax in the art of body designing is reached in the new Cole Eight Four-Door Toursedan.

Original and convenient Cole arrangement of adjustable glass panels make it the equivalent of five cars in one.

You can quickly convert it from an open Touring Car into a divided Touring Car, a family Sedan, a Towncar-Limousine or a Berline-Limousine.

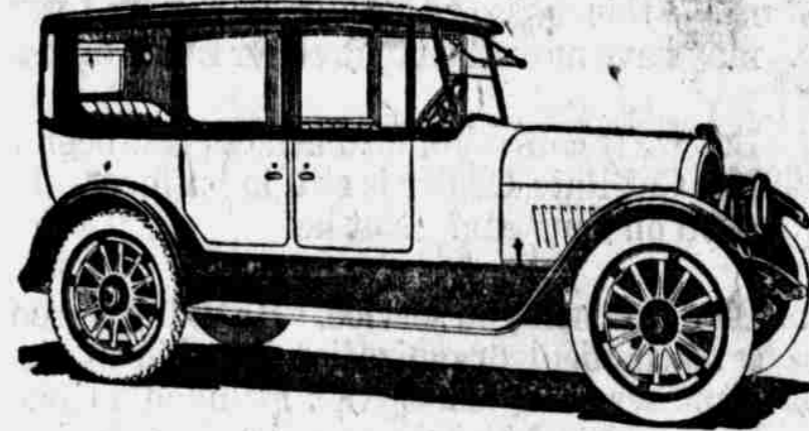
The top is permanent and the glass panels disappear inside of the body.

Avail yourself of this improved car while you can get immediate delivery.

DE BROWN AUTO SALES CO.
Wholesale Distributors for Iowa and Northern Nebraska.
Some Good Territory Open for Live Dealers.
2210 Farnam St., Omaha, Neb. 1414 Locust St., Des Moines, Ia.

TRAYNOR AUTOMOBILE CO.
Retail Distributors
2210 Farnam Street. Phone Douglas 5268.

Cole Motor Car Company
Indianapolis, U. S. A.

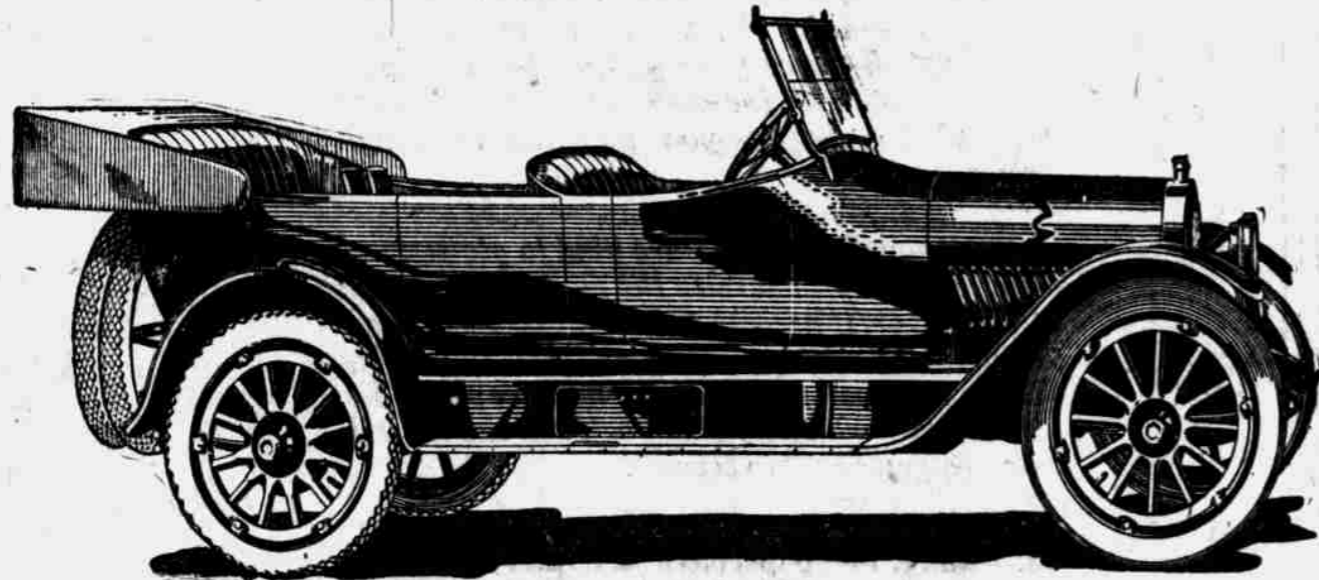


Four-Door Toursedan Prices
7-passenger with divided front seats . . . \$2399
7-passenger with solid front seat, glass partition . . . \$2699
8-passenger with 6 seats in tonneau . . . \$2799
Prices, Other Models
7-passenger touring car . . . \$1999
4-passenger Tourado roadster . . . \$1999
4-passenger Tourcoupe . . . \$2499
All prices f. o. b. factory and subject to change without notice.

ANNOUNCING THE

Oldsmobile

DIRECT FACTORY CONNECTION IN OMAHA



SEVEN-PASSENGER TOURING
Price \$1467 f. o. b. Lansing, Mich.

THE opening of our sales and service department in Omaha is followed by a sense of satisfaction and anticipation. We are satisfied with the warm reception which has been given the Oldsmobile in all sections of our territory and we anticipate growing favor through the establishment of our offices in Omaha.

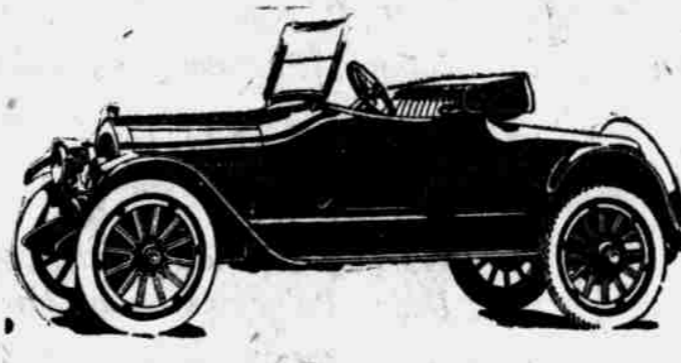
It is not our purpose in this advertisement to go into details regarding the Oldsmobile other than to say that it is a General Motors Co. product with the same "built-in" value which distinguishes all their automobiles. We merely wish to inform the people of this community of our latest progress and our policy.

From a modest start one year ago the Nebraska Oldsmobile Co. has grown to be a leading distributor in the state with the brightest of prospects in full view. This we have accomplished by combining honest business principles with an automobile of unquestioned reputation. We have made it a point to give prompt and efficient service to all our owners and dealers.

We expect to build a permanent business in Omaha and with this view in mind have purchased the location at 2559 Farnam St. This location will be completely remodeled and redecored to suit our needs. Service facilities will be enlarged and improved.



CLUB ROADSTER
Price \$1467 f. o. b. Lansing, Mich.



ROADSTER
Price \$1467 f. o. b. Lansing, Mich.

Nebraska Oldsmobile Company, Inc.

Distributors for Nebraska and Southwestern Iowa

OMAHA, NEB.
2559 Farnam St. Phone Tyler 3336.

LINCOLN, NEB.
16th and O Sts. Phone B-6522.



Too Low!

The hydrometer tells the tale! The little float, sinking deep in the battery solution, gives instant warning of danger.

The specific gravity is too low—the battery has been starved, but the hydrometer warns you in time to apply the remedy and keep your battery in good health.

You might never have guessed that trouble was near—because your battery appeared to work with undi-

minished energy. But the hydrometer is never fooled—it always shows up the true condition of your battery.

Next time you're near, come in and we'll show you how to take hydrometer tests.

And while you're here, ask us about the Still Better Willard with Threaded Rubber Insulation. The remarkable performance of this battery during a two years' test is of interest to all car owners.

Nebraska Storage Battery Co.

2203 Farnam St. Omaha, Neb. Tel. Doug. 5102

We have a rental battery for your use if yours needs repairs.

Willard

STORAGE BATTERY
SERVICE STATION